

# INDEXA



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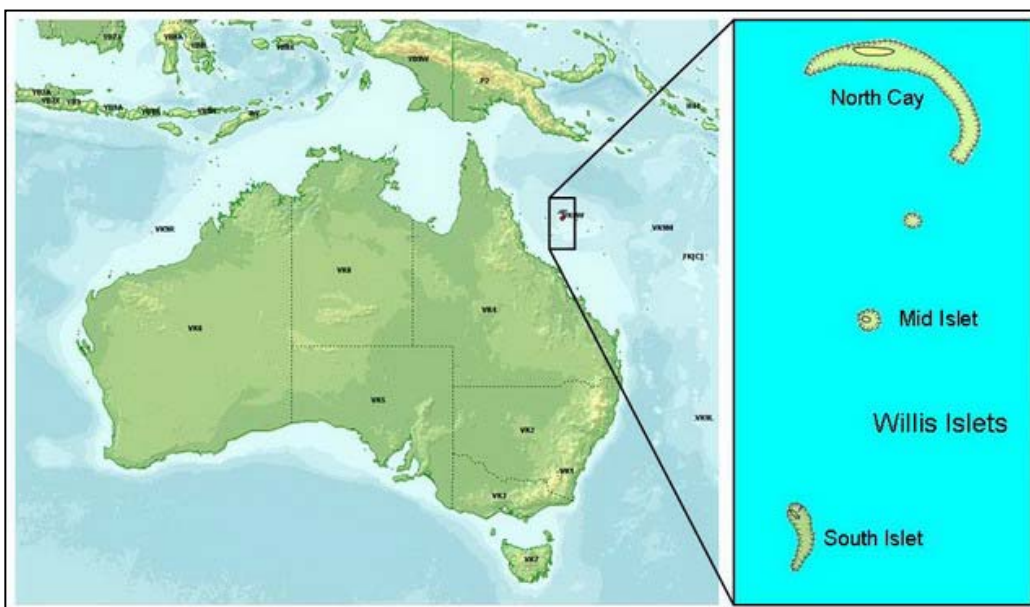
## VK9DWX: DXpedition to Willis Island

Written by Dieter Schuster DL8OH

Translated to English by Joerg Puchstein DL8WPX and Bernd Laenger VK2IA

From 9 October to 25 October 2008 an international team activated Willis Island, a rare DXCC entity northeast of Australia. More than 95,000 contacts were made in an effort that brought dead bands to life. A total of 23,128 hams could put either a new DXCC country or new band points into their logs.

Everything had been planned in detail: An advanced guard of two retirees (DJ5IW and DL8OH) and a seasoned DXpeditioner (DL8WPX)



were dispatched early to receive all gear that had been shipped by sea freight to Cairns, buy additional equipment as required and get everything loaded on board MV Floreat, our vessel waiting for us at Cairns port. The operators would fly in just in time, find their way to the boat and set sail to Willis Island! We were fortunate to have great logistical support from Dale, VK4DMC, and Robert, SP5XVY, who joined us a few days later.

### Where is our Equipment?

Of course, things did not go exactly according to plans. Our shipment from Germany did not go to Brisbane where all customs documents were filed. Instead it went to Sydney where it was stored in a dark spot in the dock area, anonymous and without

any documents for customs clearance. How could Alla, the agent lady from our freight forwarder in Brisbane possibly find the pallets in Sydney? We had to make it very clear to her that finding the missing freight was crucial to all our efforts and the whole venture—the DXpedition would be going nowhere and people from Germany, Poland, USA and South Africa would arrive in Australia for nothing!

After numerous phone calls, massaging her ego and subtle pressure gently applied in the right proportion, she took it on as a personal challenge and put her best efforts into solving the problem. Alla updated us twice a day with the latest news which allowed us to get the full picture on what had happened. The ship-

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inside . . . . Are you a history buff? What was going on in 1986?

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ment was found in the Port of Sydney, loaded onto a truck the very same day and dispatched to Brisbane. But then something strange happened. The truck and all our gear disappeared! No message from the driver—he even switched off his mobile phone. Alla almost despaired, but excelled herself and eventually mastered Customs and Quarantine in Brisbane in record time. All our crates arrived in time at the wharf to be loaded onboard MV Floreat.

A short time later, more good news arrived. The rest of the Team (DJ7EO, DJ9RR, DL1MGB, DL3DXX, DL5LYM and W4WJF) had just cleared immigration at Cairns airport and was on its way to the harbor. After a brief welcome all of us inspected our vessel and met the crew consisting of Marcus, our skipper, Gordon, his father and Susie, our cook.

Then we got down to business. All the gear had to be stored on board. Many of the items were secured on the upper deck. The fuel drums, although already on the vessel, would be filled just before setting sail.

### The Voyage to Willis

It was around 9pm on a pitch black tropical night when we weighed anchor and MV Floreat set its course towards Willis Island. The first part of the voyage was calm, as long as we were steaming through waters protected by the Great Barrier Reef. It became more difficult on the other side of the Reef when the boat was fighting against swells and wind with waves pounding from the front while we were making our way to the East. While slowly progressing on our journey, one veteran DXpeditioner, filled with enthusiasm earlier, quietly disappeared in the cabin never to be seen again. The hard core travelers continued telling yarns from their former seafarer lives trying to kill time by topping each other with their colorful stories. An Elecraft K3 was connected to a 17m antenna—giving us the chance to show the world that we were en route to Willis.

The following day did not bring anything spectacular except an odd atoll at the horizon, a few flying fish accompanying us and once in a while a sea bird watching out for prey. Not another ship was seen—it was just us in the vast Coral Sea. Early the next morning we reached South Islet. We anchored in a sheltered bay enjoying the quietness of the ocean and Susie's delicious breakfast.

After breakfast, a group consisting of skipper Marcus and five men (DJ5IW, DL1MGB, DL8OH, SP5XVY and W4WJF) took the dinghy and went ashore for a courtesy visit with the meteorology crew on the island. Since the early 1900's, the Australian Bureau of Meteorology has operated a weather station on South Islet. The station is currently manned by three men and a woman and is a crucial part of Australia's cyclone early warning and monitoring system.

During our pre-planning phase, we briefly considered operating from this location as most DXpeditions had done in the past. We were concerned, however, that our radios would interfere with the sensitive meteorological equipment and instead selected North Cay (see map, Front Page) as our destination where VK9WWI had been active a year earlier. We had met Tomy, HA7RY, at Friedrichshafen's Ham Radio fair and took the opportunity to ask him many detailed questions. He warned us to stay away from North Cay! Our skipper also did not like the North Cay destination because navigating around that cay was very treacherous. In addition, our vessel would need to be anchored further away from the shore with the transfer of material to the Cay becoming a significant risk factor.

Marcus suggested we have a closer look at Mid Islet with more secluded anchorages and a distance to shore of only a few hundred meters. When he added that he had been there ten years ago with another DXpedition we were convinced. We left the meteorological station at around noon, anchors were pulled and MV Floreat was steering to Mid Islet

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about 5 nautical miles away.

After a short while, we could see the island, a small cay covered with shrubs and grass, rising only about three to four meters above sea level at high tide. Thousands of birds call it their home, several kinds of boobies and frigate birds—the same ones that can be found anywhere in the South Pacific and Southern Ocean. The island was also inhabited by a huge number of little crabs as well as hundreds of little chook-like birds not bigger than quails. We also learned that turtles visit the islet at night to lay their eggs.

### Landing and Setting up

We split up the team. Three of us first went ashore to find the best locations for our tents, generators, station and antennas. Three stayed on board to help with unloading. Then four more went to the island to receive all our gear and take it to an elevated spot. Landing was a bit rough but without any incidents. The feeling of standing on solid ground was something everybody had been looking forward to since we left Cairns! Each time, when landing and unloading, extreme care had to be taken as the dinghy was constantly being pushed onto the sand by the action of the waves—and whoever got too close to it could have been injured badly. Fortunately, we had no mishaps.



Crystal clear water aided the landing team in avoiding coral heads while landing.

Huge flocks of birds gave us a noisy welcome flying around us at close distance. They obviously must have never encountered a human and were now curious to see who these strange creatures were, invading their territory. About 80 per cent of the island was covered with vegetation. All birds lived in this part, built their nests there and fed their chicks there—making it impossible for us to use except for a few small spots. Therefore, our main focus became the narrow sandy beach of about 15 to 100 meters wide that stretched around the island. We also had to take into account a constant Easterly wind which was blowing most of the time at 6 Beaufort (25-30 miles/hour).

The big question was where to find shelter on an island merely 3 meters above sea level. We eventually found a few suitable spots for station and operator tents along the sand strip near the vegetated area. Antennas had to be erected in closer proximity to each other than what had been planned originally. Fortunately, this setup did not result in any interference between the stations.

It took us almost two days to set up everything; the beverages were finally functional on the third day. DL1MGB made the first QSO on 17m on Thursday, 9 October 2008 at 0954 UTC. After that we were on the air with four complete stations at the same time. Another station followed two days later.



Several tons of equipment had to be moved ashore and then set up. Anxious DXers sometimes forget the logistics of remote operations while awaiting that first QSO to appear.



## VK9DWX: DXpedition to Willis Island (con'd)

### Stations and Antennas

We operated with five stations in two camps—each equipped with an Elecraft K3, an ACOM-1000 linear amplifier and a microHAM MKII interface. Each station also had a notebook with separate mouse and keyboard. All stations used Wintest as logging software and were connected with each other via WLAN. In addition, we established an internet connection via satellite through a separate notebook. It was mainly used for regular updates of our VK9DWX web site and to keep track on what was happening in the DX cluster. Unfortunately the satellite link was a bit unstable which meant that we could not update our log as often as we wanted. On the other hand, all our radio gear performed flawlessly with a few minor exceptions that were quickly fixed.

As for antennas, we had decided to use a 100% vertical concept which turned out to be a great choice. Our four squares for 80m, 40m and 30m showed superb directivity and a real good front-to-back ratio. When working JA or W/VE, VK stations could not work us from the back side as we simply did not hear them. When switching the antenna towards VK, we could hear them loud and clear.

On 160m we were using a well proven V160 antenna from Titanex for which DJ9RR had built a new tailor-made matching network. For the high bands we erected so called vertical dipole arrays (VDA). DL1MGB and DL8WPX took the vertical dipoles used by the Ducie DXpedition as a basis for a new development of dipole arrays that could now be switched between four directions instead of two.

Experiences from Ducie (VP6DX), our activity on Norfolk (VK9DNX) and now from Willis clearly demonstrate the advantages and superior performance of vertical antennas over three element yagis at 10m above ground when erected near salt water.

### On Air Experiences

The pile-ups were simply terrific. The needle of the S-meter went up to S9+10 and stayed there. We instantly faced a single wall of undistinguishable noise, more than 10 kHz wide and only occasionally topped by some voice fragments or CW tone bursts. From time to time some Big Guns came through, at least enabling us to copy some call fragments. In the first few days, running big rates was challenging



**Erecting a large vertical like this in a stiff breeze with birds flying through the guys can be a challenge. Note one of the team is running to secure the next guy and the wind's effect on the antenna.**

using CW and almost impossible on phone. The worldwide need for Willis Island was just tremendous.

Of course, each of us carried his own experience of sitting at the home station trying to work rare countries in huge pile-ups. In this respect we certainly could understand the emotions of DXers all over the world. Frustration slowly develops, if after hours of calling you still don't get through or if the cheeky and unfair interference on our frequencies wrecks your nerves.

But what about the extraordinary feeling of joy and happiness, once you have completed your contact? Even this small thievish joy when your tail-ending

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## VK9DWX: DXpedition to Willis Island (con'd)



**Josh, W4WJF, one of the “rookies” invited to join the team, didn’t fit that category at DXpedition’s end. Here he “airs” the INDEXA flag in a late afternoon breeze.**

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was only a tiny, but decisive moment faster than other DXers, or if you were picked out of the mud after leaving the main body of the pile-up and grabbing a frequency at the edge of the listening range instead. Yes, some of these cries of jubilation we heard too, reflecting happiness and motivation back to us.

As time went on some routine was established. Focus shifted to the low bands during the local night and to the high bands at morning and afternoon. Hottest primetime was the grayline period during dusk and dawn. Noon always was very slow—some “local” Asian and Oceania traffic only. Sometimes we heard nothing at all, but still one or the other nice QSOs went into the log at this time of the day often in a very relaxed fashion.

On the other hand, it was fascinating to hear European signals coming in on 10m and 12m at local dusk, with minimum signal level and barely readable. Or, what about the signals from America and Europe on 160m, buried somewhere deep in the mud of topical QRN? QSOs were still possible, but only in CW, of course. There are voices that claim we concentrated too much on CW and didn’t work enough SSB. Apart from the fact that you just can’t be everybody’s

darling, what follows is a completely objective statement: Whenever SSB wasn’t possible anymore because of QRM or QRN or simply a lack of signal strength, continuing with CW was still an opportunity, perhaps not with the best rates but certainly better than nothing. And it looks as if it also was a good strategy to change modes from time to time again quickly after yet another interferer blocked our TX frequency.

### **Rookies and Visitors**

During early planning it became clear that the M/V “Floreat” would not be able to carry a sufficient amount of fuel for our generators for the duration of the planned stay. Thus, we decided to charter a second vessel—the MV “Rum Runner”—for a replenishment trip halfway thru our expedition.

This requirement opened the door for some completely new ideas. Now we were able to give interested parties the unique opportunity to visit an on-going radio operation at a remote place on earth. Then, one of our planned team members had to drop out on short notice and DJ7EO came up with the great idea to offer two young DXers the rare opportunity to participate in our DXpedition free of charge, excluding their transportation to Cairns. Within two weeks after initial announcement via Internet we received applications from more than 20 candidates from all continents. After lively internal debate we selected and named the two “rookies” joining the team: Josh, W4WJF and Rhy, ZS6DXB.

In the end this idea paid off big time—for our rookies as well as for us. Not only did they far exceed our expectations in terms of performance and endurance—bravely diving into even the deepest SSB pile-ups—but they fully participated in completing the chores of our daily routine on this remote spot. They are some wonderful guys and were some excellent company. We really enjoyed having them around on our trip.

Josh joined us for the first half of the trip. At half time the “Rum Runner” arrived as scheduled, providing fresh food and fuel. It also safely carried our visitors Bernd, DK2JW and our mate Dale, VK4DMC, who helped in an excellent manner during the preparations for our trip. Also arriving was

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Rhy, replacing Josh as our rookie during the second part of this DXpedition.

### Daily Life

On many days at noon the tropical sun burned almost vertically from the sky. Fortunately a strong wind blew continuously out of the southeast, making the heat somehow bearable. Except during some rainy days it was dry and not tropically humid or sticky, with top outside temperatures ranging from 30° to 35°C (85° to 95°F). Yet, take away the wind and add some heat from the equipment in our tents and quickly we were happy we bought and carried some big cooling fans. Our low band team faced the biggest problem trying to get some sleep in the calm shelter of the tents during the hot day.

Besides our daily portion of pile-ups there was not much distraction on the island. As it turned out, our central community tent quickly became the place to be "outside of office hours". Most discussions were focused on the optimization of our operations and the various aspects of station fine tuning. Everybody participated by providing the experience gained during his own shift.

Susie prepared all the excellent meals aboard the M/V "Floreat", and once per day we received our delivery of fresh food and also drinking water from the ship's desalination plant. Unfortunately the origin of the produced fresh water could not be denied, it did not taste really good. Fortunately we brought



Despite the pileups, the team must still eat!

enough beer, and since beer in Bavaria is recognized as full-valued food, one can say that we always had food in every respect.

When possible, we did take a closer look at our surroundings. A slow beach walk around the island took us just 20 minutes. Protecting the large bird colonies living here, we avoided touching the interior of the island. Anyhow, even on the beach screaming flocks of birds always surrounded us. The screaming continued throughout the day and got even stronger at night. Soon we were accustomed to it but we still hear this noise days later, even being at home again, only interrupted from time to time by some imaginary call fragments in Phone or CW. Another aspect of bird life is their odor, especially after some rainfall! Since our camp had been placed on the leeward of the island to provide shelter from the strong winds, we were always surrounded by this fine "fragrance". Well, considering our own living standard and its hygienic limitations, after a week or two you couldn't really distinguish the source of the smell anymore.

The difference between high and low tide was usually about 2 meters (6 to 7 feet). Sometimes during bad weather the water rose even higher and flooded parts of the beach, including several of our 4-Square antennas. While we were happy about the perfect ground conductivity, we finally had to move several antennas to higher ground to prevent them from being washed away. Once or twice the water came close to our tents, but no real harm was done. The constant heavy winds proved to be by far more dangerous than the rising waters.

While the dangers of wind and weather demanded a lot of our attention, we were compensated by Mother Nature with some wonderful tropical sunsets. Over and over again everybody not being on duty went out at dusk and was stunned by this fantastic and colourful spectacle.

### Fauna on Mid Islet

As mentioned earlier, Boobies and Frigate Birds are species typically found in large quantities on pacific islands, and the Willis Island group is no exception. There exist several species of boobies, with the Masked Booby, comparable to our northerly Gannet, occupying the beachfront. These are quite funny

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## VK9DWX: DXpedition to Willis Island (con'd)

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birds. They waddle clumsily on their feet and their reedy, whistling greeting call sounds like a mix of duck and crow. They might look clumsy on the ground, but as soon as they get some air under their wings you find them to be some of the most elegant flying creatures. Gently climbing in the wind, sailing long distances without a flap of their wings, and in the next moment jolting down, stopping their dive just inches above the sea, their wingtips touching the water. Masked Boobies are spectacular divers too, plunging diagonally into the ocean at high speed. The beach is their breeding ground and you can find two eggs lying in the bare sand, alternately protected by both male and female partners. Looking deep into our eyes they melted our hearts, despite them being quite lively, argumentative and very persistent, if not stubborn. We soon became friends and were talking to them—some of them even got their own names.

The interior of the island was completely occupied by a large colony of Sooty Terns, being the main source of the everlasting tremendous noise. In addition to birds, we had “company” from several species of crabs, mainly the omnipresent red colored Hermit Crabs and Ghost Crabs. Hidden in jetsam, roots of bushes and under stones by day, at night they all came out in numbers looking for food.

Frequently some huge, heavy Green Turtles, visited us. They came at night, slowly crossing the beach leaving their famous tractor trail in the sand. As soon as they found a comfortable place further away and protected from the sea, they started to dig deep holes. Over a period of several hours they then laid their eggs before they slowly went back into the sea at dawn, being totally exhausted. Sometimes one of them tried to enter our property or got entangled in our cables or radials, but our nightly “turtle watch” helped and guided them safely without incident.

### Going Home

According to plan, participation in the CQWW DX SSB was to be our final highlight. On Monday after local dawn we planned to dismantle everything and leave at dusk. But as early as Friday our skipper informed us about some bad weather approaching the area. Getting all equipment and the team safely back aboard was certainly his main concern. Thus, we briefly discussed the situation and decided not to

take any risk and to leave a day earlier. That gave us only about 20 hours of contest operating time but still enough to hand out this very rare multiplier. Saturday at local noon the contest started and our “Phonies” once again had a wonderful time.

Sunday morning at dawn we finally closed down and started immediately to dismantle and pack everything. It is always amazing how quickly one can shut down a camp of this size. In the afternoon, all 10 operators and more than two tons of equipment were safely back aboard the “Floreat”, and nothing remained of our stay on the island except our footprints. Taking our first hot shower after such a long time was a blessing indeed and the first beer afterwards tasted better than ever. We left Mid Islet and returned to South Islet for a brief stop, offering our farewells to the weather team. Susie prepared another delicious dinner and we all were in a mood to wind down, enjoying yet another nice tropical sunset.



**Island sunsets always represent some of the most memorable times for many DXpeditioners.**

Next morning we weighed anchor for the last time at Willis Island and were finally on our way back to Cairns. Compared to the outward journey, the return trip was pleasant because wind and waves came from astern, pushing the ship gently forward. We made another brief stop leeward of the Herald Cays, enjoying a bath in the aquamarine water and then a freshly caught Job fish, which Susie served for lunch. The only shark we came across didn't show up until

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## VK9DWX—Willis (concluded)

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the remains of our lunch went over board. Entering the Great Barrier Reef we were greeted by a school of dolphins and soon we were back in Cairns.

In Cairns we met Dale again, already waiting for us. Next we had to unload all the radio equipment and to bring it back to our warehouse, finally preparing it for the sea cargo trip back to Germany. Everything purchased locally was handed over to Dale and he started the sell-off. Last but not least, after we left the "Floreat" and moved into the hotel, we all came together once again for a delicious dinner in a restaurant close to the marina, finally saying farewell to the crew of M/V "Floreat" and to Dale, VK4DMC.

### Post Script

We think that we've been successful in our mission to bring a new country or some new band points to as many of the deserving as possible. We thank all the stations on the other side of the pileups for their cooperation and understanding.

We would also like to thank all the many persons, companies and DX organizations for their financial assistance and hardware support, without which this DXpedition certainly would not have taken place, e.g.: Northern California DX Foundation, Lake Western DX Group, EUDXF, GDXF, Chiltern DX Club, **INDEXA**, DDXG, SDXF, Clipperton DX Club, GMDXG, VERON, LSDXA, MHDXA, CVCC, TCDXA and MDXA as well as Spiderbeam, microHAM, Titanex and appello.

## INDEXA—25 Years of History

In the Winter 2009 Issue (#84) of this newsletter, we mentioned that your officers were in the process of securing access to every issue of the INDEXA Newsletter produced in its first 25 years of operation.

We now have all of those issues collected and scanned into Acrobat PDF files. We are still working to see if we can develop a full index of the text for possible inclusion on a CD-ROM for those members who might be interested.

When I was a lad, many years ago, I cannot say I loved history. Yet, interest in history seems to increase as one grows older. Perhaps it is because we learn the importance of the perspective that time gives to us. Then again, maybe it is just a desire to relive intervals of our lives—especially recent history that we've experienced. I can tell you this—learning what INDEXA was doing ten, fifteen or twenty year ago is just plain enjoyable.

How about you? For a price in the range of \$10 to \$15, would you be interested in having a collection of the first 25 years of INDEXA Newsletters on a CD-ROM? Let Bill Jennings know at his email address:

**w4unp@comporium.net**

Your responses will tell us whether we should move forward, and help us obtain reproduction costs based on quantity of CDs wanted.

— *The Editor, John Scott, K8YC*

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